

In the past and at present my main fields of interest belong to Discrete Mathematics, with main focus on Graph Theory. But sometimes some contributions in other mathematical and/or engineering disciplines have been made (for more details see the list of all papers included in my Home Page).

On the other hand, within Graph Theory the target one is Spectral Graph Theory and favourite subtopic are listed below:

Graphs with least eigenvalue close to -2 ,
Eigenvectors and eigenspaces of graphs and signed graphs,
Spectral determination and/or characterization problems,
Spectral reconstructions,
Integral graphs (with computer aided research),
Graph perturbations,
Spectral ordering of graphs,
Bounds on graph eigenvalues,
Spectrally constrained graphs,
Limiting points for graph eigenvalues,
Laplacian and signless Laplacian (with signed graphs included),
Computation of characteristic polynomials (of graphs),
Applications of Spectral Graph Theory (in real networks).